

THE URBAN DISTRICT COUNCIL OF ESTON.

SIXTH

ANNUAL REPORT

BY

THE MEDICAL OFFICER,

FOR THE

YEAR ENDING 31ST DECEMBER, 1903.

Middlesbrough :

WILLIAM APPELYARD & SONS, LIMITED, PRINTERS, 12 ROYAL EXCHANGE,

1904.

The Urban District Council of Eston.

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THOMAS BELK, Solicitor, Middlesbrough.

Surveyor and Sanitary Inspector :

C. McDERMID, Eston, R.S.O.

Medical Officer :

GEORGE C. H. FULTON, M.B., C.M.

Sanatorium :

GEORGE C. H. FULTON, M.B., C.M., Eston, Medical Officer.

MISS FROOD, Matron.

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ESTON URBAN DISTRICT COUNCIL.

SIXTH ANNUAL REPORT OF THE MEDICAL OFFICER OF HEALTH.

TO THE ESTON URBAN DISTRICT COUNCIL.

GENTLEMEN,

I have the honour of submitting to you my Sixth Annual Report on the Health of Eston District during the year 1903 with an account of the Sanitary work performed.

STATISTICAL SUMMARY.

Area of the District in acres	-	-	-	-	-	-	2,251
Estimated Population at Mid-Summer	-	-	-	-	-	-	12,304
Density of Population per acre	-	-	-	-	-	-	5·45
Inhabited Houses	-	-	-	-	-	-	2,233
Rateable value of District	-	-	-	-	-	-	£73,463 15s.
Births	-	-	-	-	-	-	406
Birth-rate	-	-	-	-	-	-	32·99
Deaths	-	-	-	-	-	-	194
Death-rate	-	-	-	-	-	-	15·76
Zymotic Deaths	-	-	-	-	-	-	16
Zymotic Death-rate	-	-	-	-	-	-	1·30
Infantile Mortality	-	-	-	-	-	-	64
Ratio of Infantile Deaths to Births per 1,000	-	-	-	-	-	-	157·6
Infectious cases notified	-	-	-	-	-	-	136
Infectious cases isolated at the Sanatorium	-	-	-	-	-	-	74

VITAL STATISTICS.

During the year the births of 406 children have been registered, of these 201 were boys and 205 girls. The total gives a rate of 32·99 per 1,000 per annum of the estimated population. Last year the birth-rate was 35·07 of the estimated population.

MORTAL STATISTICS.

During the year ending December 31st, 1903, 194 deaths were registered in Eston Urban Sanitary District. The death rate was equal to 15·76 per 1,000 of the population estimated to the middle of the year. Last year 201 deaths were registered, the death rate being equal to 17·03 per 1,000 per annum of the estimated population.

TABLE A.

Showing the Death-rate of Eston, 1888 to 1903, inclusive:—

Rates per 1,000 of population for 1903 were: Births 32·99, Deaths 15·76 \							
„	„	1902	„	„	35·07	„	17·03
„	„	1901	„	„	38·21	„	14·37
„	„	1900	„	„	31·60	„	19·29
„	„	1899	„	„	35·31	„	20·94
„	„	1898	„	„	37·63	„	17·72
„	„	897	„	„	38·99	„	16·45
„	„	1896	„	„	36·37	„	16·45
„	„	1895	„	„	37·24	„	17·48
„	„	1894	„	„	31·41	„	15·70
„	„	1893	„	„	33·09	„	18·51
„	„	1892	„	„	34·96	„	19·54
„	„	1891	„	„	38·66	„	17·76
„	„	1890	„	„	35·96	„	17·33
„	„	1889	„	„	34·33	„	16·25
„	„	1888	„	„	40·39	„	20·66

Average
Death-
rate for
16 years
17·44

B.—Table showing the Number of Deaths from Zymotic Diseases
in the Thirteen Years 1891 to 1903.

	1891	1892	1893	1894	1895	1896	1897	1898	1899	1900	1901	1902	1903
Smallpox .. ..	...	...	...	...	...	...	1	6	...	...	...	...	...
Measles	7	28	2	...	1	21	2	1	17	...	...	8	1
Scarlet Fever ...	2	...	...	...	1	3	1	...	...	3	...	1	..
Diphtheria	3	...	1	...	5	3	...	...	...	3	...	1	2
Whooping Cough ...	4	8	2	13	1	7	9	5	2	13	...	7	3
(Typhus	...	...	7	...	...	...	...	...	...	...	...	...	...
Fever { Enteric	5	...	4	4	2	4	2	11	3	4	3	2	2
(Simple Continued...	4	9	..	...	9	...	3	1	2	.	...	1	...
Diarrhoea	7	10	13	11	18	11	5	10	18	8	13	...	8
Erysipelas ... ..	...	...	...	...	...	...	..	...	..	1	...	...	...
Deaths from 7 Chief Zymotic Diseases ...	32	55	21	28	37	49	23	34	43	29	16	22	16
Deaths from other causes ...	158	154	169	140	150	127	153	161	215	211	145	179	178
Totals for each year to the District	190	209	198	168	187	176	176	195	258	240	161	201	194
Death-rate from 7 Chief Zymotic Diseases, per 1,000	2.27	5.14	2.71	2.61	3.45	4.58	2.15	3.09	3.49	2.33	1.42	1.86	1.30
Death-rate from other causes per 1,000 ...	14.79	14.40	15.80	13.09	11.03	11.87	14.30	14.63	17.45	16.96	12.95	15.17	13.46
General Death-rate per 1,000	17.76	19.54	18.51	15.70	17.48	16.45	16.45	17.72	20.91	19.29	14.37	17.03	15.76

EPITOME OF MONTHLY REPORTS.

JANUARY. Deaths were chiefly due to Chest Complaints, Bronchitis, etc. Death-rate 14·10.

FEBRUARY. Death from Chest Complaints still prevalent. Bronchitis, Consumption, Pneumonia rate 17·41.

MARCH. Deaths from Diseases of the Chest are still numerous and the weather during the month was cold and changeable. Whooping Cough and Diphtheria appears in the district, rate 20·95.

APRIL. Pulmonary Diseases still remain high, death-rate 15·86.

MAY. Scarlet Fever is prevalent in Grangetown. Whooping Cough epidemic at Eston, rate 15·21. Infant department of Council Schools at Eston closed for three weeks on account of Whooping Cough.

JUNE. Whooping Cough still prevalent at Eston, otherwise district healthy, rate 16·61.

JULY. Several cases of Scarlet Fever again appears at Grangetown, rate 16·61.

AUGUST. Small Pox case in the district, rate 10·71.

SEPTEMBER. Second case of Small Pox (School Teacher) imported into the district, rate 11·01.

OCTOBER. The summer has been wet and cold so we have had little Diarrhoea, rate 11·29.

NOVEMBER. Nothing important during month, rate 15·43.

DECEMBER. Health of district satisfactory, rate 17·62.

MEASURES TAKEN TO PREVENT THE SPREAD OF INFECTIOUS DISEASES.

1st. Careful systematic inspection of the district with a view to remedying any sanitary defects likely to give rise to infectious diseases.

2nd. Visitation of your Medical Officer and Inspector of every house in which infectious disease occurs.

3rd. Free Isolation in the Sanatorium.

4th. School notification of infectious diseases and preventing children from infectious houses attending School.

5th. Distribution of printed precautions against the spread of infectious diseases.

6th. Disinfection of all infected houses by an Officer of the Council under the supervision of your Inspector.

7th. Gratuitous supply of disinfectants in all cases requiring them.

CAUSES OF DEATH.

Diseases of the Respiratory Organs. Forty-nine deaths occurred from this cause, being 5 more than last year. Diseases of the lungs will always remain high in your district; as we have a trying, changeable climate—and the men's employment is such as to endanger the lungs—heats and colds. We should wear flannel next the skin, and be more temperate in eating and drinking.

Tuberculosis and Wasting (Consumption) claims 24 victims as against 20 last year. Consumption is a preventable disease which is caused by minute living germs called "Tubercle bacilli," which usually enter the body with the air breathed. The matter which consumptive people cough or spit up contains the germs of the disease in great numbers. If this matter is spat upon the floors or the walls of any public or private place, or elsewhere, as soon as it becomes dry the germs of the disease which it contains, are blown about and float in the air, like any other minute particles of dust, and are inhaled by anybody breathing that air; or they may fall upon milk or other food, and gain access to the body with the food, so consumptives should always be careful to spit into a vessel containing water, or use a piece of rag or paper and burn it at once.

PRECAUTIONS TO BE TAKEN IN A CASE OF CONSUMPTION.

Consumption is an infectious disease and therefore is preventible. Infection occurs through the sputum or spit which the sick person coughs up from the diseased lungs; when this dries it floats in the air and is inhaled by other persons.

A consumptive person who follows out the following recommendations is not only doing the best thing possible for others, but is at the same time largely increasing his own chance of recovery.

Do not swallow the sputum.

Do not spit anywhere except on to a rag or piece of paper ; burn the rag or paper at once.

The sick room should be cleansed often ; on the termination of the illness it should be disinfected, this will be done free of charge by the Sanitary Authority.

Dampness, darkness, dirt, and want of ventilation, favour the spread of the disease ; sunlight, fresh air, and cleanliness check it.

A consumptive person should if possible occupy a separate bedroom.

SMALLPOX.

Two cases of Smallpox occurred in your district during the year. One case in August and the other in September, and the measures adopted were successful in stamping out the disease. I may state the measures adopted as we have had absolute success so far since I became your Medical Officer. Whenever a case of Smallpox is notified, usually by telephone, the Medical Officer visits the patient at once and the patient is removed to our Isolation Hospital, the house is disinfected throughout, and the bedding and clothing removed and burned (we have not a steam disinfectant) the contacts are quarantined and compensation paid to them (16 days and revaccinated if they will consent. The following day the rooms are stripped of wall paper, which is removed and burnt, the contacts are visited every other day to see if any fresh cases develop ; if not on the 15th or 16th day the contacts are liberated. One of the most obvious modes in the suppression of a threatened epidemic of Smallpox is promptness of action ; a few days, even a few hours, may make all the difference between the suppression and extension of the disease, coincidental with the removal of the patient and the necessary disinfection, revaccination of all contacts should be proceeded with.

SCARLET FEVER.

This disease was very prevalent and continues to spread especially at Grangetown, due no doubt to the mildness of the disease, want of care by parents, and with cases being over looked, missed by parents or doctor.

MEASLES.

Measles was prevalent at Eston during the year and 1 death occurred from this disease. With care this should not be if mothers would only keep their children warm and indoors during the attack, *i.e.* for about 3 weeks.

WHOOPING COUGH.

Whooping Cough should not be a fatal disease although we have 3 deaths recorded during the year. The child should be kept warm for 6 weeks. If the child is not then well it will benefit the child to give it a change of air to the sea side, mines, gas works, etc., etc. If the child is exposed before 6 weeks have elapsed (the natural duration of the disease) then the child gets Bronchitis or other complaint with the chance of a fatal result. Infant department of Council Schools at Eston closed for three weeks on account of Whooping Cough.

ENTERIC OR TYPHOID FEVER.

Only 2 deaths have occurred from Enteric Fever, the same as last year—this is very satisfactory. I repeat the number of cases of Typhoid Fever is a true index of the sanitary state of the district. All cases of Enteric Fever are not water borne or due to milk. It may be caused by flies, in many cases when the diseased patient remains at home other persons are infected by soiled linen, etc.

DIPHTHERIA.

We have had 9 cases of Diphtheria notified during the year; in 6 the Bacillus was found and these cases were isolated at the Sanatorium. Diphtheria is an acute specific disease, epidemic and contagious, and is characterised by a membranous exudation on the mucous membrane of the throat or adjacent parts. Occasionally a wound on the surface of the body may be the seat of diphtheria infection. The disease is not only directly inoculable by contamination with diphtheria products, but may be indirectly conveyed by infected clothing and other external objects. It is primarily caused by a specific bacillus (Kerbs-Loeffler) which is exclusively found at the seat of infection; and yields toxins, to the absorption of which the phenomena of the disease is due. It has been a matter of observation that certain rural districts in which the surface soil is cold and humid, and where damp houses and privy and drainage nuisances abound, or where the aspect involves much exposure to cold, wet winds, particularly favour by diphtheria, these conditions lower the vitality of the system, and give a good breeding ground for the bacillus to act, but in my opinion do not directly cause the disease.

INFANTILE MORTALITY.

The term "infant" is restricted to twelve months of age. The high mortality among infants, however good their surroundings, and however intelligently maternal care is exercised, arises from many causes; a certain proportion are premature, and cannot survive, some are born with malformations and other defects which soon terminate their existence; others, the offspring of weakly parents, cannot long survive, and in spite of all care, there is a large proportion who will succumb to one or other of the many ailments to which infancy is susceptible. Making due allowance for these, it may be taken that an annual death-rate amongst infants of 100 per thousand, is unavoidable, and if this be granted, it follows that anything above this is preventable, although the necessary means to prevent it are so extremely difficult to apply that even in the best districts the loss of infant lives is in excess of the standard. Our infantile mortality is 157 as against 171 per thousand last year, this is something, but it shows a great sacrifice of young lives, and public opinion ought to be aroused to this fact. It is a scandal and a shame that in every other department of sanitary science we have been able to do much, but infantile mortality is the black spot in our sanitary efforts, and has remained about the same for the last 20 years.

We should, by teaching Hygiene in schools, stir up public opinion in this matter. The mother is the natural guardian of the infant, and 90 per cent. of all mothers should feed their own child; their breast-milk is the most natural and suitable for their own child. Mothers should be mothers and not gay society puppets, who want a life of change and excitement, with the rest in how they can get rigged up to attract and make a display. This is the new woman (mother) of the higher, middle, and lower classes. If breast-milk fails from any cause then cow's milk is most useful. Artificial foods and condensed milks of all kinds are an abomination and should not be given without advice. Infantile feeding is undoubtedly the most fertile source of our deteriorated national physique in recruits.

C.—Table of Population, Births, and of New Cases of Infectious Sickness, coming to the knowledge of the Medical Officer of Health, during the year 1902, in the Eston Urban District; classified according to Diseases, Ages, and Localities.

Names of Localities adopted for the purpose of these Statistics; Public Institutions being shown as separate localities	Population at all Ages		Aged under 5 or over 5	Smallpox	New cases of sickness in each locality coming to the knowledge of the Medical Officer of Health					Number of such cases removed from their homes in the several localities for treatment in Isolation Hospital					
	Last census	Estima- ted to middle of 1902			Diphtheria	Scarlatina	Enteric or Typhoid Fever	Continued Fever	Erysipelas	Scarlatina	Enteric or Typhoid Fever	Continued Fever	Diphtheria		
Grange and Eston Grange ...	5,533	5,913	Under 5 5 upwards	...	2	29	...	...	...	16	...	...	...	...	...
Eston ...	3,811	3,910	Under 5 5 upwards	...	2	41	3	1	10	32	3	1	2	...	1
South Bank and Branch End ...	2,459	2,481	Under 5 5 upwards	...	...	11	...	...	...	3	...	...	...	...	...
TOTALS ...	11,803	12,304	Under 5 5 upwards	...	3	41	...	...	...	23	...	...	...	...	...
				2	12	101	6	1	14	61	3	1	6	2	1

Causes of, and Ages at, Death during year 1903.

CAUSES OF DEATH	DEATHS IN OR BELONGING TO WHOLE DISTRICT AT SUBJOINED AGES						
	All ages	Under 1 year	1 and under 5	5 and under 15	15 and under 25	25 and under 65	65 and up- wards
Measles	1	...	1	...	...	...	...
Whooping Cough	3	...	3	...	...	...	...
Diphtheria and Membranous Croup	2	...	2	...	...	...	...
Croup	2	...	2	...	...	...	...
Enteric Fever	2	...	...	...	...	2	...
Epidemic Influenza	1	...	...	...	1	...	...
Diarrhoea	8	7	1	...	...	...	...
Phthisis	11	...	1	1	3	6	...
Other Tubercular Diseases	13	4	5	2	...	1	1
Cancer, malignant disease	7	.	...	1	...	5	1
Bronchitis	32	11	12	...	...	2	7
Pneumonia	14	1	1	...	2	9	1
Other Diseases of Respiratory Organs	3	...	3	...	...	...	...
Alcoholism Cirrhosis of Liver	1	...	...	...	...	1	...
Premature Birth	5	5	...	...	...	...	...
Diseases & Accidents of Parturition	3	...	...	...	1	2	...
Heart Diseases	9	...	1	...	...	6	2
Accidents	10	...	...	1	3	6	...
	127	28	32	5	10	40	12
All other causes	67	36	3	1	1	12	14
All causes	194	64	35	6	11	52	26

Summary of Table IV.

	No. of Deaths.		No. of Deaths.
I.—SPECIFIC FEBRILE, OR ZYMOTIC DISEASES.		<i>Brought forward</i>	83
1. Miasmatic Diseases	8	VI.—LOCAL DISEASES—continued.	85
2. Diarrhoeal	8	5. Diseases of Urinary System	5
	— 16	6. Diseases of Parturition ...	3
III.—DIETETIC DISEASES	5	7. Diseases of Bones and Joints	1
IV.—CONSTITUTIONAL DISEASES ...	31	8. Diseases of Integumentary System	2
V.—DEVELOPMENTAL DISEASES ...	31		— 96
VI.—LOCAL DISEASES.		VII.—VIOLENCE.	
1. Diseases of Nervous System	22	1. Accident or Negligence ...	10
2. Diseases of Circulatory System	9		— 10
3. Diseases of Respiratory System	49	VIII.—ILL-DEFINED AND NOT SPECI- FIED CAUSES	5
4. Diseases of Digestive System	5		—
	—		
	85		
	—		
<i>Carried forward</i>	83	TOTAL	194

TABLE I.

Vital Statistics of Whole District during 1903 and Previous Years.

YEAR	Population estimated to Middle of each year	BIRTHS		TOTAL DEATHS REGISTERED IN THE DISTRICT				NETT DEATHS AT ALL AGES BELONGING TO THE DISTRICT	
		No.	Rate	Under 1 Year of Age		At all Ages		No.	Rate
				No.	Rate per 1,000 Births	No.	Rate		
1893	10,695	354	33.09	62	...	198	18.51	198	18.51
1894	10,695	336	31.41	55	...	168	15.70	168	15.70
1895	10,695	398	37.24	66	...	187	17.48	187	17.48
1896	10,695	389	36.37	57	...	176	16.45	176	16.45
1897	10,695	417	38.99	68	...	176	16.45	176	16.45
1898	11,000	414	37.63	54	...	195	17.72	195	17.72
1899	12,319	434	35.31	97	...	258	20.24	258	20.94
1900	12,443	393	31.60	80	...	240	19.29	240	19.29
1901	11,199	428	38.21	50	116	161	14.37	161	14.37
1902	11,802	414	35.07	71	171	201	17.03	201	17.03
Averages for years 1893-1902	11,248	397	35.49	66	..	196	17.32	196	17.32
1903	12,304	406	32.99	64	157.6	194	15.76	194	15.76

Table II.—Vital Statistics in 1903 and previous years.

Year	Population estimated to middle of each year	Births registered	Deaths at all ages	Deaths under 1 year
1893	10,695	351	198	62
1894	10,695	336	168	55
1895	10,695	398	187	66
1896	10,695	389	176	57
1897	10,695	417	176	68
1898	11,000	414	195	51
1899	12,319	434	258	97
1900	12,443	393	240	80
1901	11,199	428	161	50
1902	11,803	414	201	71
1903	12,334	406	194	61

Table III.—Cases of Infectious Disease notified during 1903.

Notifiable Disease	Cases notified in whole District							Total cases notified in Eston
	At all Ages	Under 1	1 to 5	5 to 15	15 to 25	25 to 65	65 and upwards	
Smallpox	2	...	...	..	...	2	...	2
Diphtheria	9	..	3	5	...	1	...	6
Membranous Croup ...	3	...	3	...	...	...	...	..
Erysipelas	14	..	...	2	1	10	1	1
Scarlet Fever	101	4	40	47	4	6	...	61
Enteric Fever	6	...	...	1	1	4	...	3
Continued Fever	1	...	...	..	1	...	...	1
Totals	136	4	46	55	7	23	1	74

ISOLATION OF INFECTIOUS DISEASES.

D.—The Table given below shows admissions and deaths of patients at the Sanatorium during each year since the 16th day of May, 1894, to the 31st December, 1903; giving a total of 598 cases, and a death rate for the 9½ years of 4·9 per cent.

ADMISSIONS										DEATHS						
			Smallpox	Scarlatina	Diphtheria	Typhus	Enteric	Other Diseases	TOTAL	Smallpox	Scarlatina	Diphtheria	Typhus	Enteric	Other Diseases	TOTAL
1894	...	...	...	2	1	...	4	...	7	...	...	...	...	1	...	1
1895	...	...	...	148	...	...	8	2	158	—	1	...	...	1	...	2
1896	..	...	...	91	..	...	6	...	103	..	1	...	...	1	...	2
1897	...	...	1	24	1	...	13	1	40	...	...	...	...	1	2	3
1898	..	...	24	3	...	...	18	...	45	6	...	...	...	4	...	10
1899	...	...	...	6	...	...	10	2	18	...	...	...	..	3	...	3
1900	...	...	...	52	...	...	12	4	69	...	2	...	...	2	...	4
1901	...	...	...	98	...	.	16	1	115	..	...	...	...	2	...	2
1902	...	...	...	31	...	...	7	9	47	...	1	...	...	...	...	1
1903	...	...	2	61	6	...	3	2	74	...	...	...	...	1	...	1
			27	519	8	...	27	21	672	6	5	...	...	15	2	29=4·3%

GEORGE C. H. FULTON, M.B., C.M.,

Medical Officer to Sanatorium.

THE SANATORIUM (32 BEDS).

This Institution continues to be appreciated in your district, 136 cases of infectious disease were notified and 74 isolated. This is a good percentage as we had to exclude cases for nearly three months because of Small Pox. Six cases of Diphtheria were admitted to the hospital. They were injected with Antitoxin at once and no deaths occurred. Of the 74 cases admitted during the year only one death occurred—a case of Enteric Fever.

A steam disinfecter is badly wanted at the Sanatorium, and I would ask the Council to consider the advisability of having a steam disinfecter at the Sanatorium. I have to thank the Matron (Miss Frood) and her Nurses for the care and skill they have bestowed on the patients. The results are their results.

SPECIAL REPORT ON THE PROCESS OF DISINFECTION.

GENTLEMEN,

The process of disinfection is conducted in a variety of ways, according to the necessities of the particular case—that is, whether it be rooms, articles of clothing, or bedding, discharges from the patients, food, drink, etc., that are infected. The means at our disposal are:—

- 1.—Heat (dry and moist).
- 2.—Chemical substances (in liquid or powder).
- 3.—Fumigation (by gases or vapours.)
- 4.—Fresh air and general cleanliness (most important).

The question before the Council at present is:—Is the method of disinfection at the Sanatorium satisfactory? My answer is No. A special report was presented to the Council on the 12th of July, 1899.

Our method of disinfection is primitive in the extreme as I have pointed out more than once, and should if possible be replaced by a *Steam Disinfecter*, which is the best way to disinfect. Unless we have proper disinfection of all infected articles, isolation is more or less a farce, as return cases must occur and undo the good that has been done by isolation.

In practice the problem of disinfection is almost always complicated by the fact that the virus is not exposed freely, but enclosed in garments, pillows, or even beds; that is, in more or less bulky articles made of materials which have been selected for use as being the worst conductors of heat.

It is found that steam rapidly penetrates into the interior of such objects. The first portions condense, parting with their latent heat in so doing and create a partial vacuum, so that successive supplies of steam follow continuously until a temperature of at least 212° is attained at the centre.

Dry hot air, on the contrary, being dependent on conduction, very slightly aided by convection, has no such power, and it is practically impossible to raise the temperature at the centre of a bed or similar bulky object to 212° F. by dry heat within a reasonable number of hours.

Hot air, moistened by steam, is superior to dry hot air in penetration, but not in germicidal power, and is far inferior to steam in both respects.

Another important consideration is the effect upon the colour and texture of fabrics exposed to heat. Articles composed in part of fusible substances, such as glue or sealing-wax, are, of course, ruined by heat in any form. Steam is inadmissible for leather objects, since it shrivels them up and renders them worthless; hot air merely makes them dry and brittle. With these exceptions steam is less injurious than hot air in almost all respects. New woollen goods, such as blankets and flannels, lose some of whiteness and fleeciness by either process, but not more than in one or two washings. Silk and cotton are not injured by steam nor by hot air if the temperature is carefully regulated. Dyes are surprisingly little affected by either steam or hot air.

The chief difficulty in steam apparatus is to prevent loss of heat and condensation. This is overcome by surrounding the steam chamber by a "Steam Jacket," that is, by making the wall of the apparatus double and admitting steam into the space between the inner and outer casings. A door is provided at each end, one for the reception of infected goods and the other for removal of goods after disinfection. The doors are steam tight, and are fastened by strong screw clamps. The articles to be disinfected are placed in trays or suspended from sliding racks.

The following are the chief disinfectors in the market :—

- 1.—Ransom's Hot Air Apparatus.
- 2.—Washington Lyons' Steam Apparatus.
- 3.—The Geneste and Herscher "Equifez" Apparatus.
- 4.—Reck's Steam Disinfecter.
- 5.—Thresh's Disinfecter.

The Washington Lyons' apparatus is perhaps the best, and will disinfect thoroughly in twenty minutes to half-an-hour. The Reck and Thresh apparatus are much cheaper, and the Thresh's is well spoken of.

I am, Gentlemen,

Your obedient servant,

GEORGE H. FULTON, M.B., C.M.

Medical Officer of Health.

Eston,

26th March, 1903.

COMMON LODGING HOUSE.

This Lodging House has been frequently inspected during the year, and it appears to be well managed and conducted. Wash-hand basins, &c., are now provided for the inmates. All my suggestions to benefit the inmates have been attended to. Mr. Taylor appears always willing to do what he can to help the Sanitary Authorities. Number of beds 84.

FARMS.

ESTON GRANGE FARM, MESSRS. BOLCKOW, VAUGHAN & CO.—54 COWS.—This farm is very well kept; all the byres are now well lighted and ventilated, and the water supply is improved. This farm is over stocked for the air space provided.

WRIGHTSON'S ESTON LOW FARM.—Here we have good farm buildings, but the farmer is evidently afraid of fresh air, as the ventilating holes in the byre are all stuffed with straw; but no milk is sent away from this farm. It is not necessary to do much, only point the mistake out to the farmer. Ventilation improved since last visit.

BACON'S, CHURCH LANE.—4 COWS.—This farm is now better lighted and ventilated, and the surroundings greatly improved. The Dairy is improved, but baskets, &c., are kept in the dairy, and manure outside the byre wall close to door. I would advise that a letter be written to Mr. Bacon warning him of this nuisance.

RICHARDSON'S LODGE FARM, ESTON.—7 COWS. Byres kept in fair condition. Dairy now satisfactory.

RICHARDSON'S, JUBILEE ROAD.—4 COWS.—Proper dairy. Everything advised has been done since my last visit

YEATES, JUBILEE ROAD, ESTON.—9 COWS.—The byres are only fairly satisfactory, but are well kept, and they try to do what is right so far as the houses will permit. Dairy unsatisfactory. Should be written to about dairy.

BINGLEY.—2 COWS.—Byre satisfactory Dairy 95 California; unsatisfactory, but promised to carry out my requirements. This done

KYME, 147 CALIFORNIA.—No Cow kept at present.

ALLENBY, THOMAS, JUBILEE ROAD, ESTON.—1 COW.—Dairy not very satisfactory; now put right.

ARMSTRONG, WM., 61 JUBILEE ROAD, ESTON.—9 COWS.—Byre greatly improved. Dairy bad: to be improved. Water supply from hill.

INGLEDEW, WM., CHURCH LANE, ESTON.—3 COWS.—Good byre accommodation, and the dairy very satisfactory.

MILK SELLERS.

EVISON, CHARLES, BOLCKOW STREET, ESTON.—19 gallons daily from Hicks, Lackenby; all milk taken round. Milk in shop in covered vessel.

SANDERSON, 67 WILLIAM STREET, ESTON.—Dairy in yard, now satisfactory; milk taken round.

GALE, SARAH, 8 HENRY STREET, SOUTH BANK.—4 gallons daily from Skipper—Satisfactory.

DOBSON, M., 114 NORMANBY ROAD, SOUTH BANK—Milk in covered vessels, fairly well stored 4 gallons daily, owns cows at Lackenby.

ROSS, W., 6A MIDDLESBROUGH ROAD, SOUTH BANK.—Everything in order for a small sale. 1 gallon daily.

FLEMING, N. R., CROSS BECK, NORMANBY.—Satisfactory.

JOHNS, M., 19 WHITWORTH ROAD, GRANGETOWN.—36 gallons daily supply from Eston Grange Farm. The milk is stored in proper vessels which are kept thoroughly clean, but the shop isn't a suitable one for milk selling, when vegetables, fruit, fish, &c., are also sold. This cannot be remedied.

ANGIERS, ROBT., 49 LAING STREET, GRANGETOWN.—17 gallons daily from Mr. Collin, Low Lackenby. This dairy is much better kept; the warning given last year has produced a good result. Milk only kept in this pantry now. Getting slack again: give another warning.

PORTER, ROBERT, 46 WHITWORTH ROAD—6 gallons daily from Hanhams, Normanby. Everything in order.

PORTER, ROBERT, 6 WHITWORTH ROAD.—2 gallons daily from Hanhams, Normanby. Everything in order.

WILKINSON, A., 104 LAING STREET, GRANGETOWN. 35 gallons daily from Eston Grange Farm. Milk kept in back kitchen which is scrupulously clean—the place is small, but it is well lighted and ventilated.

LIGHTFOOT, ANN, WHITWORTH ROAD, GRANGETOWN.—1½ gallons daily from Hanhams. Milk in proper vessels and covered. Papers sold in this shop

CARMODY, W., 2 WHITWORTH ROAD, GRANGETOWN.—2 gallons daily from Eston Grange Farm. Milk in proper vessels. Shop satisfactory.

SLAUGHTER HOUSES.

All licensed slaughter houses have been inspected, and are in fairly good order. Of course I should like to see a public slaughter house for the district (abbatoir).

FACTORY AND WORKSHOPS ACT, 1901.

Section 132 of the Act states that “The Medical Officer of Health of every District Council shall in his annual report to them, report specifically on the administration of this Act in workshops and work places, and he shall send a copy of his annual report, or so much of it as deals with this subject, to the Secretary of State.”

The administration of the Act, which came into force on January 1st, 1902, adds considerably to the work of the Medical Officer of Health. Upon the Council, through its officers, duties are imposed with regard to the various places coming within its scope. These are defined as factories, tenement factories, domestic factories; workshops, tenement workshops, domestic workshops, and workplaces; bakehouses and laundries. It would not serve any good purpose to enter into the definitions of the various workshops above-mentioned, nor to give particulars as to the duties devolving upon the Council. To show, however, how far reaching the Act is, the following extract from Sec. 149 is given :—“ ‘ Workshop ’ means (apart from certain places stated in the sixth schedule), any premises, room, or place not being a factory, in which premises, room, or place, or within the close, or curtilage, or precincts of which premises any manual labour is exercised by way of trade or for purposes of gain in or incidental to any of the following purposes, viz :—the making of any article or of part of an article, or the altering, repairing, ornamenting or finishing of any article : or the adapting for sale of any article, and to or over which premises, room or place, the employer of the persons working therein has the right of access or control.”

Appended is a Table shewing the number and nature of the workshops in the district (but list not complete, I am afraid) :—

Dressmakers	...	...	...	...	25
Tailors	...	...	...	...	1
Shoemakers	...	...	...	...	9
Tinsmiths and Plumbers			...	...	3
Joiners and Upholsters	...		...	...	6
Blacksmiths	...	...	...	...	3
Bakers	...	...	...	...	3
Saddlers	...	...	...	...	1
Factories	...	...	...	...	1
Domestic Workshops	...		...	...	16
					<hr/>
					68
					<hr/>

Most of the workshops were measured, and the cubic capacity calculated. The various conditions as to ventilation, heating, cleanliness, &c were enquired into, and all defects promised to be remedied. During the year frequent inspections have been made; outworkers—these are difficult to obtain, but we have now a fairly complete list.

I have again endeavoured, however feebly, to place before you my views appertaining to the public health of the district. My duties :—“to inquire into and ascertain, by such ways and means as were at my disposal, the causes, origin, and distribution of diseases within the Eston district, and to ascertain to what extent the same have depended on conditions capable of removal or investigation.”

I have pointed out from time to time the difficulties with which I have to contend. We are proud of our material progress, prosperity, and commercial position, and I point with pride to our low death rate. This is no doubt due to your care and expenditure on sanitary matters.

I have the honour to remain,

Gentlemen,

Your obedient servant,

GEORGE C. H. FULTON, M.B., C.M.

Medical Officer of Health.

January, 1904.

TO THE DISTRICT COUNCIL OF ESTON.

GENTLEMEN,

I respectfully lay before you my Annual Report for the year ending December 31st, 1903.

NOTICES.

Statutory Notices requiring the abatement of Nuisances, caused by various Sanitary defects and offences, have been served during the year as follows, viz :—

Blocked Branch Drains...	...	...	...	...	66
Defective Closet Pans	...	...	...	...	500
„ Ashpits	...	...	...	...	2
„ Pan Closet Doors	...	...	...	...	66
„ Yard Paving...	...	...	...	...	38
Dirty House ..	...	...	...	...	1
Missing and Defective Gully Grates	...	...	...	...	71
Floors of Pan Closet Receptacles being below level of Back Street	...	...	...	...	24
Privies too near Houses (rebuilt in satisfactory Position)...					3
Total					771

WORK DONE UNDER VERBAL NOTICE.

As usual many defects and nuisances in connection with Drains, Sinks, Yards, Conveniences and Buildings, &c., have hitherto been attended to and remedied under verbal instructions, without the necessity of reporting to the Council.

UNSOUND MEAT, &c.

A careful look-out has been kept during the year for any suspicious or unsound meat and food prepared for human consumption, but no doubt owing to the keen competition in the trade, the standard of meat exposed for sale is, generally speaking, of very good quality, and in no case has it been found necessary to make any complaint.

INSPECTIONS.

The whole of the Slaughter Houses, Common Lodging Houses, Cowsheds, Dairies and Milkshops have been inspected, and found in most cases to be in fairly satisfactory condition. In several cases however, although previously warned,

Foodstuffs and other things have been found in Dairies. Inspections have also been made throughout the District on receiving complaints of nuisances or Sanitary defects, &c., which have been remedied on verbal instructions and suggestions.

FACTORY AND WORKSHOP ACTS, 1901.

During the year I have visited, inspected, and taken particulars of the following Workplaces as required by the Act, viz :—

BAKEHOUSES.

Mrs. Johns, 19 Whitworth Road, Grangetown.
Mr. Porter, 46 Whitworth Road, Grangetown.
Mr. Pickering, 28 Whitworth Road, Grangetown.

DRESSMAKERS.

Miss Davey, 5 Cheetham Street, Grangetown.
Mrs. Wilson, 61 Victoria Road, Grangetown.
Miss Skillbeck, 17 Victoria Road, Grangetown.
Miss Snowdon, 20 Whitworth Road, Grangetown (Stocking Knitting).
Mr. Hugh Wilkinson, 45 Whitworth Road, Grangetown.
Miss Hewitt, 32 Jubilee Road, Eston.
Mrs. Oke, West Street, Eston.
Mrs. Fowler, 63 Wood Street, Grangetown (Outworker for Mr. Wilkinson).
*Mrs. Armstrong, High Street, Old Eston.
Miss E. Lovern, 41, Guisbro Street, Eston.
*Miss J. Lawson, 21 South Street, Eston.
Miss L. Bailey, 17 South Street, Eston.
Miss A. Cook, 30 Short William Street, Eston.
Miss M. A. Trafford, 8 William Street, Eston.
Miss K. Simcox, 133 West Row, California, Eston.
Mrs. Fowler, 116 California, Eston.
Miss A. How, 91 California Eston.
Miss F. Shaw, 150 California Eston.
Miss E. Wharton, 85 High Street, Eston.
Miss M. Shaw, 25 Gladstone Street, Eston.
Miss Densham, 43 Gladstone Street, Eston.
Miss A. Davies 19 William Street, Eston.
Miss M. Clements, 14 William Street, Eston.
Miss E. Lowery, 10 William Street, Eston.
Miss A. Allday, 18 William Street, Eston.
Miss Rand, 90 Normanby Road, South Bank (Milliner).

TAILORS.

Messrs. Osborne, High Street, Eston.

*Mr. V. Smith, South Street, Eston (Out-worker for Messrs. Osborne).

BOOT AND SHOE MAKERS AND REPAIRERS.

*G. Moore, 40 Guisbro Street, Eston.

Mr. Trainer, 43 Stapylton Street, Grangetown.

Co-operative Society, Wood Street, Grangetown.

Co-operative Society, Normanby Road, South Bank.

Thos. Moore, 87 High Street, Eston.

F. Atterton, 31 Gladstone Street, Eston.

*J. Trattles, 105 High Street, Eston.

Robinson & Sons, Whitworth Road, Grangetown.

*Wm. Shepherd, Wooden Cabin, East side of Grangetown.

JOINERS.

C. G. Bennett, Normanby Road, South Bank.

Mr. Wm. Ingledew, Church Lane, Eston.

Mr. M. W. Bearcroft, Bellevue, Old Eston.

Mr. T. Wilkinson, Eston.

Mr. Calvert, Jubilee Road, Eston.

Mr. C. E. Morriss, Grangetown.

Mr. Butcher, Grangetown.

Bolckow, Vaughan & Co., Eston Grange Farm, Grangetown.

PLUMBERS AND TINSMITHS.

Mr. T. Carter, Hewley House, Eston and Wood Street, Grangetown.

Mr. Keat, William Street, Eston.

*Mr. Calver, Normanby Road, South Bank.

BLACKSMITHS.

Mr. C. Snowdon, Eston.

Mr. M. Johnson, Grangetown.

Messrs. Bolckow, Vaughan & Co., Eston Grange Farm, Grangetown.

SADDLERS.

Messrs. Bolckow, Vaughan & Co., Eston Mines.

PORKBUTCHERS.

Mr. W. Dunn, Whitworth Road, Grangetown.

Mr. J. Carr, Whitworth Road, Grangetown.

Mr. R. Wallace, Bolckow Street, Eston.

Those marked thus * given up business or removed.

SCAVENGING.

During the year the Scavenging has again been carried out by the Council's workmen in a fairly satisfactory manner, and with very little complaint.

FIRE BRIGADES.

During the year several Fires have occurred, but only one of a serious nature, viz :—The Co-operative Stores, South Bank. The Grangetown Fire Brigade has been re-organised, and is now composed mainly of young men who, up to the present, have given every satisfaction. Superintendent Gear, of the Middlesbrough Fire Brigade, paid a visit of inspection to the district in June, and on his recommendation, several additional Hydrants have been fixed and additions made to the Brigade's equipment. The Brigades have regularly performed their drills, and are taking keener interest than hitherto in the work.

DISINFECTING.

During the year 136 cases of Infectious disease have been notified, viz :—

Scarlet Fever	...	...	...	101 Cases.
Typhoid and Continued	...	...	...	7 „
Erysipelas	...	...	...	14 „
Diphtheria	...	...	...	12 „
Small Pox	...	...	...	2 „

75 of these cases were removed to the Sanatorium for treatment.

In all cases after removal of the patient to the Sanatorium, the house has been thoroughly and carefully fumigated with Sulphur-di-Oxide, and in the case of patients being treated at home the usual precautions have been taken, and after the recovery of the patient or patients the houses have been thoroughly fumigated.

Limewash, and brushes, and disinfectants have been as usual supplied gratuitously to all applicants.

SEWERAGE.

The whole of the Sewers in the district have been periodically cleaned and flushed, and maintained in a state of efficiency.

PUBLICWORKS AND IMPROVEMENTS.

Various improvements have been carried out during the year by the Council, viz. :—

New Flagged Footpath, Kerb and Channel in front of Dr. Steele's House, Grangetown.

New Crossing put down over the Main Road opposite Eston Institute.

28 New Street Name Plates fixed in District.

The Carriageways of various Public Roads and Streets, including the Main Road, have been repaired and remetalled.

Back Street Paving repairs in various parts of the District have been done.

PRIVATE IMPROVEMENTS.

New Flagged Footpath on West Side of Gladstone Street, Eston, for Co-operative Society.

The following streets on the West Side of Whitworth Road, Grangetown, viz. :—Cheetham, Vickers, Wood, Holden, Laing, Stapylton and Vaughan Streets, have been put into proper repair under the 41st Sec. Public Health Act, 1890, at the cost of the Owners, and have since been taken over by the Council as Public Highways, repairable by the inhabitants at large.

This work has given considerable satisfaction, nearly all the cost has been refunded to the Council.

PROSECUTIONS.

There have been four prosecutions during the year for having chimneys accidentally on fire, and two prosecutions for not complying with notice to abate nuisance. In each case a fine was imposed.

PLANS APPROVED.

The following plans were laid before the Council and approved, and most of the buildings have been erected or are now in the course of erection, viz. :—

Alteration to shop front, 24 Whitworth Road, Grangetown

Alterations to back premises, 22 Jubilee Road, Eston

New "King's Head" Hotel, Victoria Road, Grangetown

Alteration to shop front, 30 Whitworth Road, Grangetown

Alterations to shop property in West Street, Eston

Urinal and Pan Closets for Eston Cemetery

Extension to Eston Hospital

Alteration to shop front, corner of Market Street and Normanby
 Road, South Bank
 Roman Catholic Church, Bolckow Road, Grangetown
 2 Dwelling Houses, Rosebery Terrace, „
 New shop front, High Street, South Eston
 Additions to premises, Jubilee Road, „
 „ „ High Street, „
 Water Closet, 20 Whitworth Road, Grangetown
 Addition to back premises, Prospect Terrace, Eston
 New Drain, East End of Bolckow Road, opposite Gladstone Terrace,
 Grangetown
 New Street, parallel with Victoria Road, Grangetown (Alexandra
 Road)
 Re-building Co-operative Stores, South Bank

WATERCOURSES.

During the year the Watercourses in the district have been periodically cleaned out, and are now in a satisfactory condition.

GRANGETOWN SUBWAY.

For a great number of years the question of a suitable and safe approach to Grangetown, from Eston Road by Bolckow Road, has occupied the attention of the Council and the public generally. Several accidents having happened from time to time owing to the steep gradients and narrow width of the present subway and approaches, but fortunately not many of a serious character. Nothing, however, had up to about a year ago been done to further the idea, owing no doubt to the great cost and it not being considered that the growth and prospects of the district at those times warranted the expenditure which would be necessary for so large an undertaking. Latterly, the immediate district of Grangetown has shown considerable signs of extension and prosperity, considerable extensions having been made, and further extensions now being in progress at Messrs. Bolckow, Vaughan & Co.'s Steel and Iron Works. Several large and handsome residences, a beautiful church, and a large number of modern and better class dwelling houses have been erected. Business places have been altered and improved, streets have been repaired and more dwellings are being erected, other land is being opened out for building purposes which will be commenced almost immediately. A large and imposing Roman Catholic Church is in course of erection, and the Imperial Tramways Company have a Bill before Parliament for a Tram-

way Service from Middlesbrough to Grangetown Station. Under these improved conditions, and with the prospect of still further developement, the Council decided that to meet the requirements of the times, and for the public benefit and convenience, the time had arrived for the improvement of the approach to Grangetown, and accordingly instructed myself to prepare a Scheme for the above purpose. Preliminary Plans were prepared and presented and discussed by the Council, and a Sub-Committee appointed to go further into the question, with the result that a second Scheme has been drawn up and approved by the Council and those interested for a Subway 45 feet wide, with the several approaches thereto, and with a clear height of 16 feet 6 inches, which is sufficient for all ordinary and extraordinary traffic of the present day, and will be, no doubt, for many years to come. Plans, Sections, Specifications, Detail Drawings, &c., have been prepared and bills of quantities taken, and it is now the intention of the Council to advertise for Tenders for the carrying out of the whole of the works, previous to arranging for a Local Government Board enquiry with a view to obtaining that Authority's sanction to borrow the amount required for the carrying out of the work.

I am, Gentlemen,

Your Obedient Servant,

C. McDERMID.

